SUSPENSION FORK
Air Spring Chart

2012

FORK	SPRING	WHEEL SIZE	MODEL	<140 LBS (<63 KG)	140-160 LBS (63-72 KG)	160-180 LBS (72-81 KG)	180-200 LBS (81-90 KG)	200-220 LBS (90-99 KG)	MAX PSI
Argyle	Solo Air	26"	RCT	120-135 psi	135-150 psi	150-165 psi	165-180 psi	180+ psi	220 psi
BoXXer	Solo Air	26"	World Cup	40-55 psi	55-70 psi	70-85 psi	85-100 psi	100-115 psi	200 psi
Lyrik	Dual Position Air	26"	RC2L, RC2 DH, RC, R	45-65 psi	65-85 psi	85-105 psi	105-125 psi	125-145 psi	248 psi
	Solo Air	26"	RC2L, RC2 DH, RC, R	45-55 psi	55-65 psi	65-75 psi	75-85 psi	85-95 psi	148 psi
Reba	Dual Air	29"	RLT, RL, RLT, RL	70-90 psi	90-105 psi	105-120 psi	120-135 psi	135+ psi	200 psi
Recon Gold 80mm	Solo Air	26"	RL, TK, R	90-110 psi	110-125 psi	125-140 psi	140-160 psi	175+ psi	225 psi
		29"	TK						
Recon Gold 100-120mm	Solo Air	26"	RL, TK, R	50-70 psi	70-85 psi	85-100 psi	100-120 psi	135+ psi	225 psi
		29"	TK						
Recon Silver 80mm	Solo Air	26"	TK, R	90-110 psi	110-125 psi	125-140 psi	140-160 psi	175+ psi	225 psi
		29"	TK						
Recon Silver 100-120mm	Solo Air	26"	TK, R	50-70 psi	70-85 psi	85-100 psi	100-120 psi	135+ psi	225 psi
		29"	TK						
Revelation	Dual Air	26"	World Cup, XX, RCT3, RLT, RL,	70-90 psi	90-105 psi	105-120 psi	120-135 psi	135+ psi	200 psi
		29"	XX, RCT3, RLT, RL						
	Dual Position Air	26"	World Cup, World Cup XX, XX, RCT3, RLT, RL	<110 psi	110-125 psi	125-140 psi	140-155 psi	155-170 psi	250 psi
		29"	XX, RCT3, RLT, RL						
Sektor	Solo Air	26"	RL, TK	50-70 psi	70-85 psi	85-100 psi	100-115 psi	115-130+ psi	225 psi
SID	Dual Air	26"	World Cup XX, World Cup, XX, RTC3, RLT, RL	70-90 psi	90-105 psi	105-120 psi	120-135 psi	135+ psi	200 psi
		29"	World Cup XX, World Cup, XX 29, RCT3, RLT, RL						
Totem	Dual Position Air	26"	RC, RC2 DH	35-40 psi	40-55 psi	55-75 psi	75-90 psi	90-110 psi	186 psi
	Solo Air	26"	RC2 DH	20-35 psi	35-50 psi	50-65 psi	65-80 psi	80-95 psi	148 psi

2013
Sektor/Recon/XC32
Solo Air Service Manual

GEN.0000000004207 Rev A

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SRAM LLC WARRANTY

EXTENT OF LIMITED WARRANTY

Except as otherwise set forth herein, SRAM warrants its products to be free from defects in materials or workmanship for a period of two years after original purchase. This warranty only applies to the original owner and is not transferable. Claims under this warranty must be made through the retailer where the bicycle or the SRAM component was purchased. Original proof of purchase is required. **Except as described herein, SRAM makes no other warranties, guaranties, or representations of any type (express or implied), and all warranties (including any implied warranties of reasonable care, merchantibility, or fitness for a particular purpose) are hereby disclaimed.**

LOCAL LAW

This warranty statement gives the customer specific legal rights. The customer may also have other rights which vary from state to state (USA), from province to province (Canada), and from country to country elsewhere in the world.

To the extent that this warranty statement is inconsistent with the local law, this warranty shall be deemed modified to be consistent with such law, under such local law, certain disclaimers and limitations of this warranty statement may apply to the customer. For example, some states in the United States of America, as well as some governments outside of the United States (including provinces in Canada) may:

a. Preclude the disclaimers and limitations of this warranty statement from limiting the statutory rights of the consumer (e.g. United Kingdom).

b. Otherwise restrict the ability of a manufacturer to enforce such disclaimers or limitations.

For Australian customers:
This SRAM limited warranty is provided in Australia by SRAM LLC, 133 North Kingsbury, 4th floor, Chicago, Illinois, 60642, USA. To make a warranty claim please contact the retailer from whom you purchased this SRAM product. Alternatively, you may make a claim by contacting SRAM Australia, 6 Marco Court, Rowville 3178, Australia. For valid claims SRAM will, at its option, either repair or replace your SRAM product. Any expenses incurred in making the warranty claim are your responsibility. The benefits given by this warranty are additional to other rights and remedies that you may have under laws relating to our products. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

LIMITATIONS OF LIABILITY

To the extent allowed by local law, except for the obligations specifically set forth in this warranty statement, in no event shall SRAM or its third party suppliers be liable for direct, indirect, special, incidental, or consequential damages.

LIMITATIONS OF WARRANTY

This warranty does not apply to products that have been incorrectly installed and/or adjusted according to the respective SRAM user manual. The SRAM user manuals can be found online at sram.com, rockshox.com, avidbike.com, truvativ.com, or zipp.com.

This warranty does not apply to damage to the product caused by a crash, impact, abuse of the product, non-compliance with manufacturers specifications of usage or any other circumstances in which the product has been subjected to forces or loads beyond its design.

This warranty does not apply when the product has been modified, including, but not limited to any attempt to open or repair any electronic and electronic related components, including the motor, controller, battery packs, wiring harnesses, switches, and chargers.

This warranty does not apply when the serial number or production code has been deliberately altered, defaced or removed.

This warranty does not apply to normal wear and tear. Wear and tear parts are subject to damage as a result of normal use, failure to service according to SRAM recommendations and/or riding or installation in conditions or applications other than recommended.

Wear and tear parts are identified as:

- Dust seals
- Bushings
- Air sealing o-rings
- Glide rings
- Rubber moving parts
- Foam rings
- Rear shock mounting hardware and main seals
- Upper tubes (stanchions)
- Stripped threads/bolts (aluminium, titanium, magnesium or steel)
- Brake sleeves
- Brake pads
- Chains
- Sprockets
- Cassettes
- Shifter and brake cables (inner and outer)
- Handlebar grips
- Shifter grips
- Jockey wheels
- Disc brake rotors
- Wheel braking surfaces
- Bottomout pads
- Bearings
- Bearing races
- Pawls
- Transmission gears
- Spokes
- Free hubs
- Aero bar pads
- Corrosion
- Tools
- Motors
- Batteries

Notwithstanding anything else set forth herein, this warranty is limited to one year for all electronic and electronic related components including motors, controllers, battery packs, wiring harnesses, switches, and chargers. The battery pack and charger warranty does not include damage from power surges, use of improper charger, improper maintenance, or such other misuse.

This warranty shall not cover damages caused by the use of parts of different manufacturers.

This warranty shall not cover damages caused by the use of parts that are not compatible, suitable and/or authorised by SRAM for use with SRAM components.

This warranty shall not cover damages resulting from commercial (rental) use.

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SAFETY FIRST!

We care about YOU. Please, always wear your safety glasses and protective gloves when servicing RockShox products.
Protect yourself! Wear your safety gear!

ROCKSHOX SUSPENSION SERVICE

We recommend that you have your RockShox suspension serviced by a qualified bicycle mechanic. Servicing RockShox suspension requires knowledge of suspension components as well as the special tools and fluids used for service.

For exploded diagram and part number information, please refer to the Spare Parts Catalog available on our web site at www.sram.com.

For order information, please contact your local SRAM distributor or dealer.

Information contained in this publication is subject to change at any time without prior notice. For the latest technical information, please visit our website at sram.com.

Your product's appearance may differ from the pictures/diagrams contained in this publication.

PARTS AND TOOLS NEEDED FOR SERVICE

- Safety glasses
- Nitrile gloves
- Apron
- Clean, lint-free rags
- Oil pan
- Isopropyl alcohol
- RockShox 15wt suspension fluid
- Suspension specific grease
- Shock pump
- Rubber mallet
- Schrader valve core tool
- 5 mm hex wrench
- 24 mm socket wrench
- Torque wrench
- 5 mm hex bit socket
- Large internal snap ring pliers
- Pick
- Long plastic or wooden dowel

SAFETY INSTRUCTIONS

Always wear safety glasses and nitrile gloves when working with suspension fluid.

Place an oil pan on the floor underneath the area where you will be working on the fork.

LOWER LEG REMOVAL

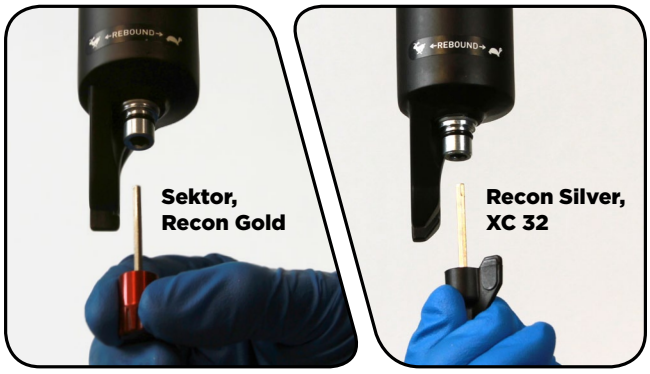
1 Remove the air valve cap from the top cap located on the non-drive side fork leg.

2 Depress the Schrader valve and release all of the air pressure from the air chamber.

⚠ CAUTION- EYE HAZARD

Verify all pressure is removed from the fork before proceeding. Failure to do so can result in injury and/or damage to the fork.

3 Remove the external rebound adjuster knob by pulling it from the shaft bolt at the bottom of the right fork leg.



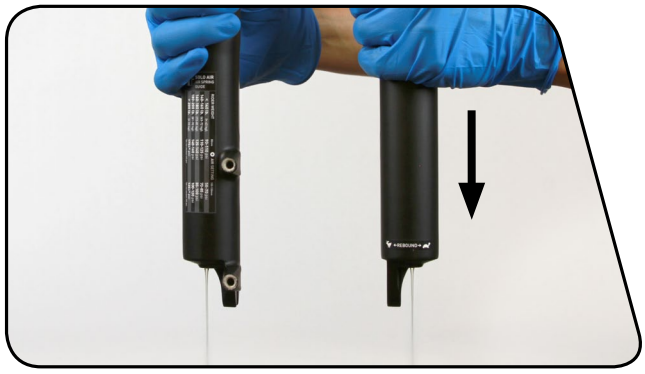
4 Use a 5 mm hex wrench to loosen both shaft bolts 3 to 4 turns.

5 Place an oil pan beneath the fork to catch any draining oil. Use a plastic mallet to firmly strike both shaft bolts to free them from their press-fit to the lower leg, then remove the shaft bolts completely.

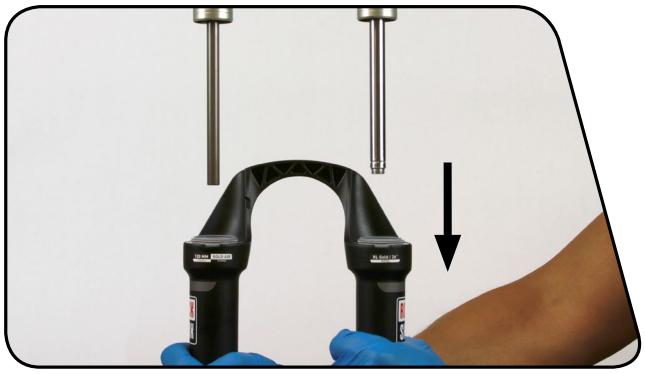
6 Firmly pull the lower leg downward until oil begins to drain.

If the upper tubes do not slide out of the lower leg or if oil doesn't drain from either side, the press fit of the shaft(s) to the lower leg may still be engaged. Reinstall the shaft bolt(s) 2 to 3 turns and repeat the previous step.

Do not hit the brake arch with any tool when removing the lower leg as this could damage the fork.



7 Remove the lower leg from the fork by pulling it downward, holding onto both legs or the brake arch.



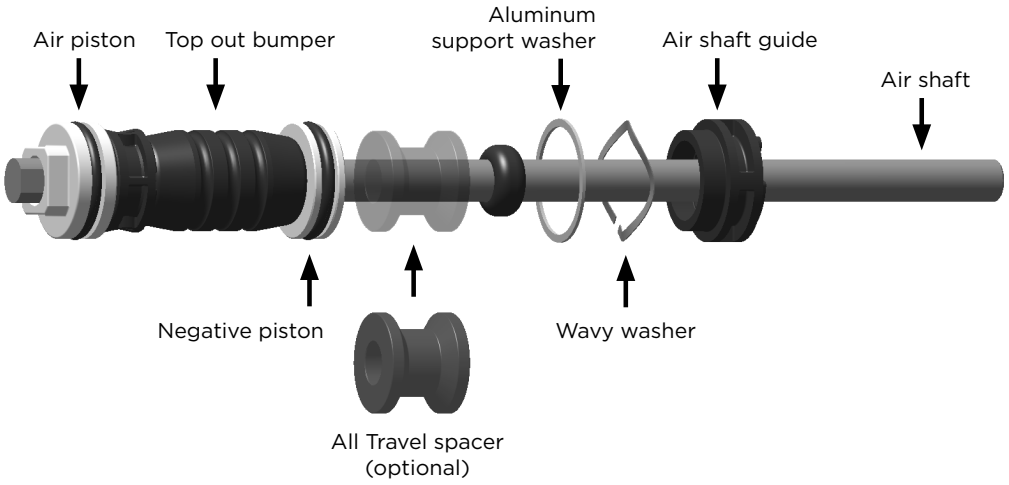
8 Spray isopropyl alcohol on and into the lower leg. Wipe the lower legs clean, then wrap a clean rag around a dowel and clean the inside of each lower leg.

SOLO AIR SPRING SERVICE (SEKTOR, RECON GOLD)

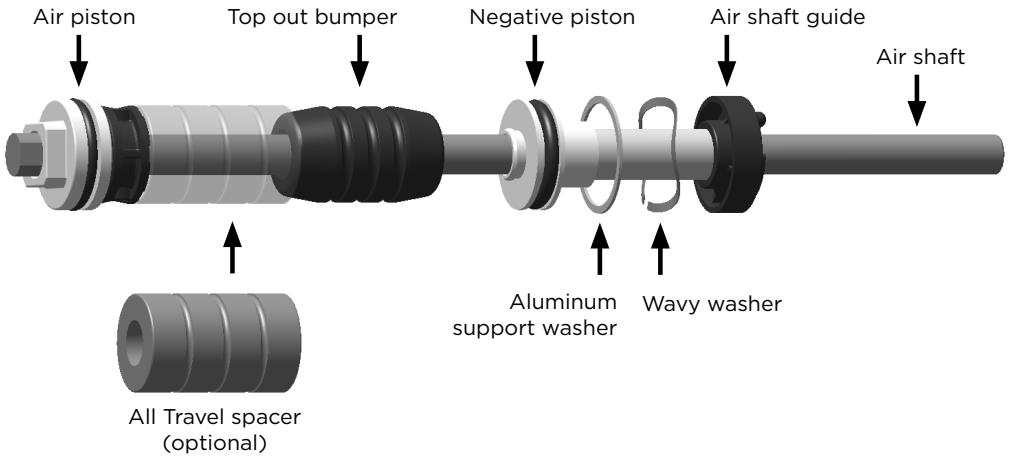
At this point you should already have the lower legs removed from your fork. If not, you will need to return to the Lower Leg Removal section of this manual and follow the instructions for removing your fork lower legs.

SOLO AIR ANATOMY

SEKTOR



RECON GOLD



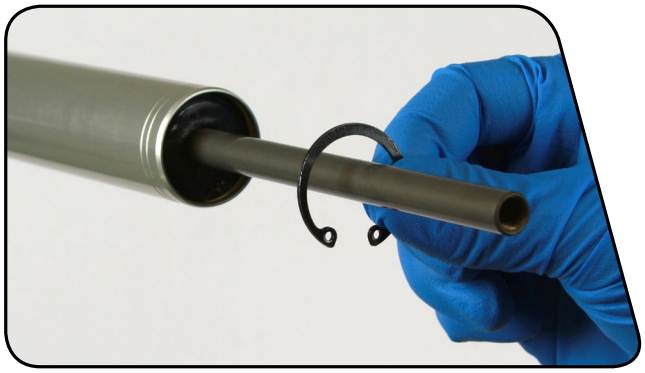
CAUTION- EYE HAZARD

Verify all pressure is removed from the fork before proceeding. Depress the Schrader valve again to remove any remaining air pressure. Failure to do so can result in injury and/or damage to the fork.

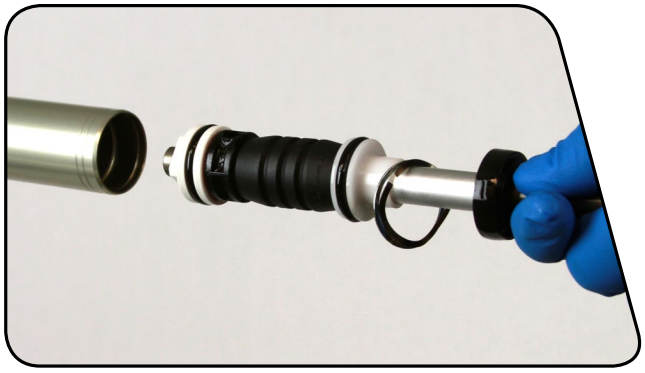
1 Unthread and remove the air spring top cap with a 24 mm socket wrench. Once removed, clean the upper tube threads with a rag.

2 Place the tips of large internal snap ring pliers into eyelets of the snap ring located at the bottom of the non drive-side upper tube. Press firmly on the pliers to push the base plate into the upper tube enough to compress and remove the snap ring.

Guide the snap ring over the spring shaft by hand to prevent scratching of the shaft. Scratches on the air spring shaft will allow air to bypass the seal head into the lower legs, resulting in reduced spring performance.



3 Firmly pull on the air shaft to remove the air spring assembly from the upper tube. Clean and inspect the assembly for damage.

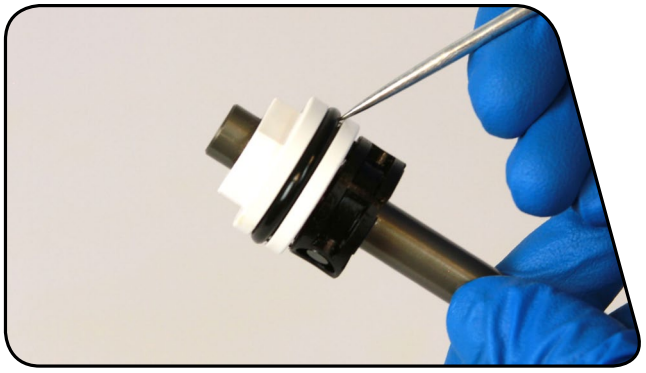


4 Spray isopropyl alcohol on the inside and outside of the upper tube. Wipe the outside of the upper tube with a clean rag. Wrap a clean rag around a long dowel and insert it into the upper tube to clean inside the upper tube.

5 Slide the base plate/negative piston assembly, top out bumper, and travel spacer (if applicable) from the air shaft. Spray the air shaft with isopropyl alcohol and wipe it clean with a rag.

6 Use a pick to remove the air piston outer o-ring. Apply grease to the new o-ring and install it.

Do not scratch the air piston. Scratches may cause air to leak.



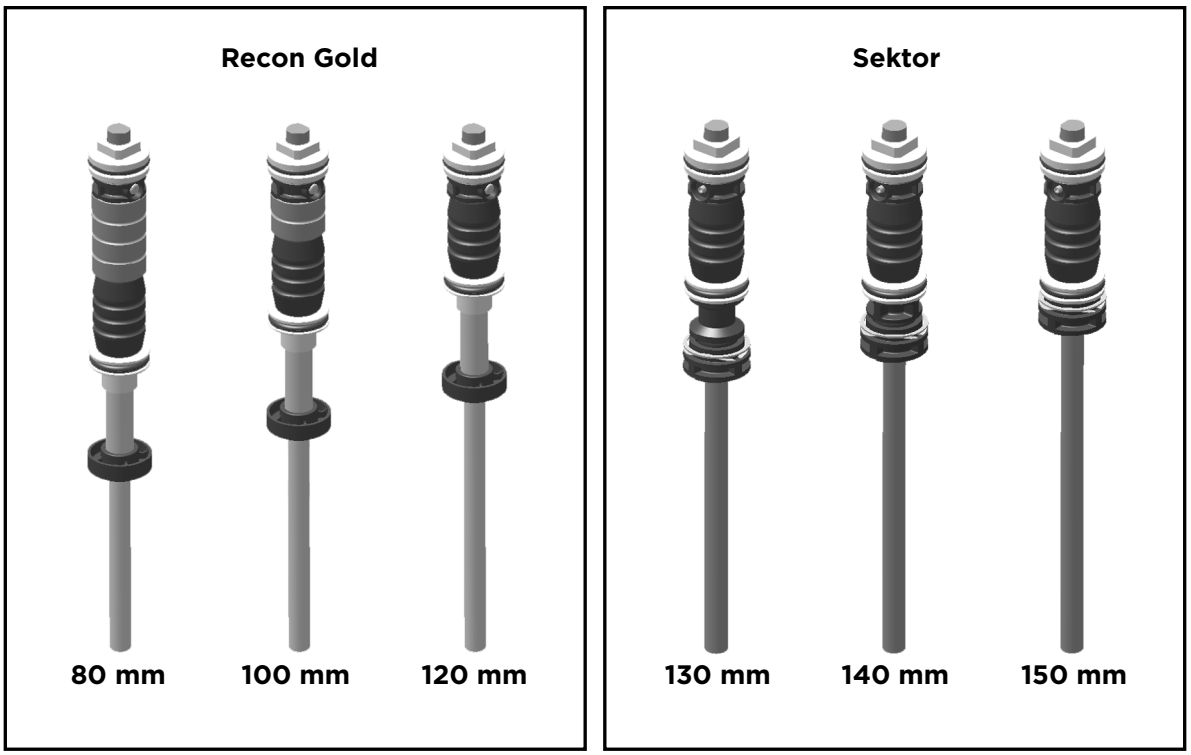
7 Remove the top out bumper from the negative piston. Use a pick to remove the inner and outer negative piston o-rings.

Apply grease to the new o-rings and install them. Install the top out bumper onto the negative piston.

Do not scratch the negative piston. Scratches may cause air to leak.

OPTIONAL - ALL TRAVEL CONFIGURATION

The All Travel spacers are located between the air piston and top out bumper. Install the travel spacer to decrease travel, or remove the spacer to increase travel.

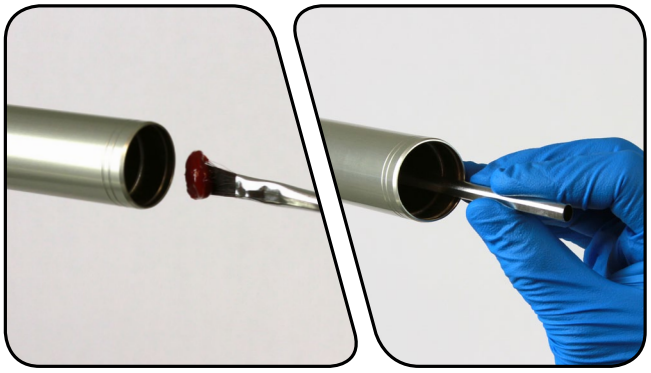


SOLO AIR SPRING INSTALLATION INSTRUCTIONS

8 Apply grease to the air shaft.

Install the travel spacer (if applicable) and base plate/negative piston assembly onto the air shaft with the top out bumper toward the air piston.

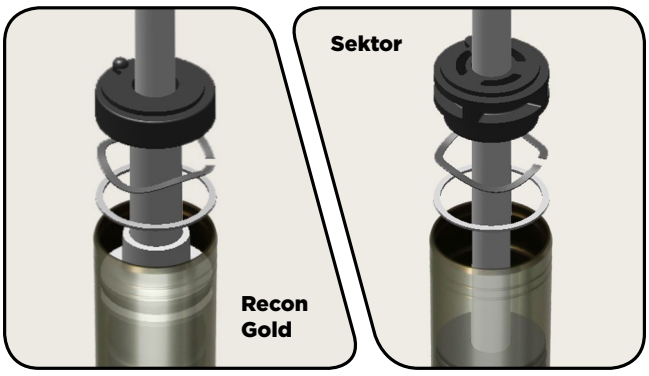
9 Apply grease to the inside of the upper tube, from the end of the tube (opposite the crown) to approximately 60 mm into the tube.



10 Apply grease to the air piston o-ring and the negative piston outer o-ring.

11 Firmly push the air assembly into the bottom of the upper tube while gently rocking the air shaft side to side.

Orient the washers so that the aluminum support washer goes into the upper tube first, followed the wavy washer.



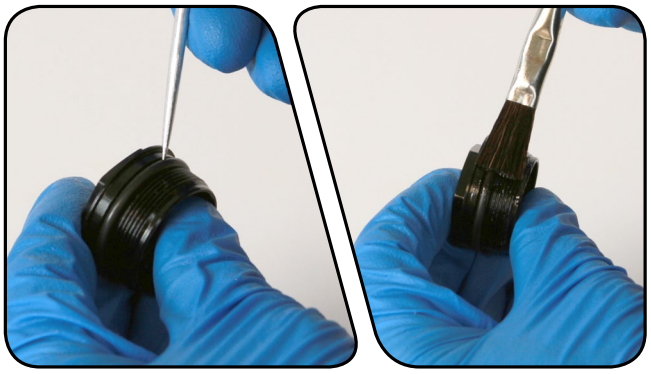
12 Install the snap ring onto large internal snap ring pliers. Use the pliers to push the base plate into the upper tube while installing the snap ring into its groove. The base plate tab should be situated between the snap ring eyelets.

Make sure the snap ring is securely fastened in the snap ring groove. Check this by using the snap ring pliers to rotate the snap ring back and forth a couple of times, then firmly pulling down on the air shaft.

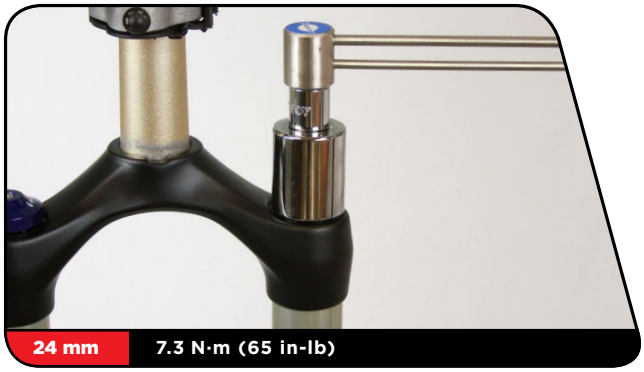
Snap rings have a sharper-edged side and a rounder-edged side. Installing snap rings with the sharper-edged side facing the tool will allow for easier installation and removal.

12 Use a pick to remove the top cap o-ring. Apply a small amount of grease to a new top cap o-ring and install it. Apply a small amount of grease to the top cap threads.

Do not scratch the top cap. Scratches may cause air to leak.



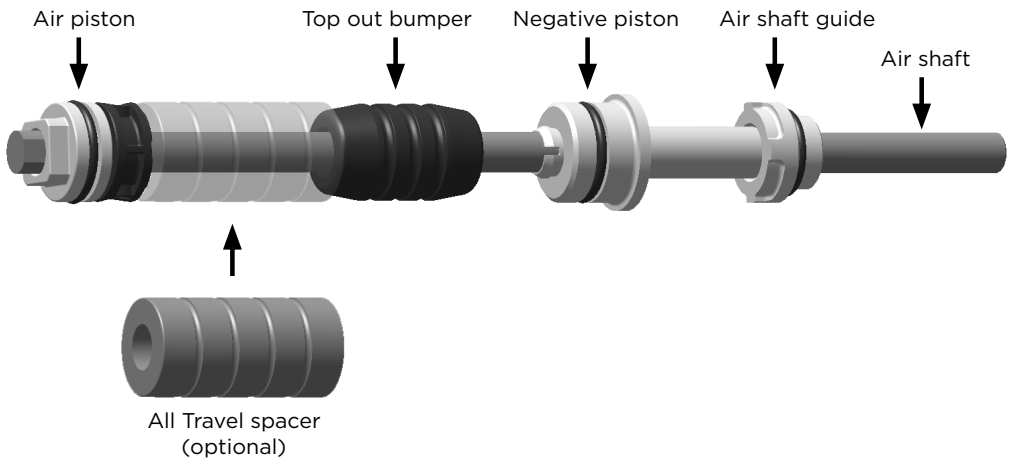
13 Insert the top cap into the upper tube/crown and thread it into the upper tube. Use a torque wrench and a 24 mm socket to tighten the top cap to 7.3 N·m (65 in-lb).



SOLO AIR SPRING SERVICE (RECON SILVER, XC32)

At this point you should already have the lower legs removed from your fork. If not, you will need to return to the Lower Leg Removal section of this manual and follow the instructions for removing your fork lower legs.

SOLO AIR ANATOMY



SOLO AIR SPRING REMOVAL/SERVICE INSTRUCTIONS

CAUTION- EYE HAZARD

Verify all pressure is removed from the fork before proceeding. Depress the Schrader valve again to remove any remaining air pressure. Failure to do so can result in injury and/or damage to the fork.

1 Use a 24 mm socket wrench to unthread the air spring top cap. The air spring assembly is attached to the top cap. Pull and lift the air spring assembly from the upper tube. Clean the upper tube threads with a rag.

2 Remove the top cap from the air tube assembly.

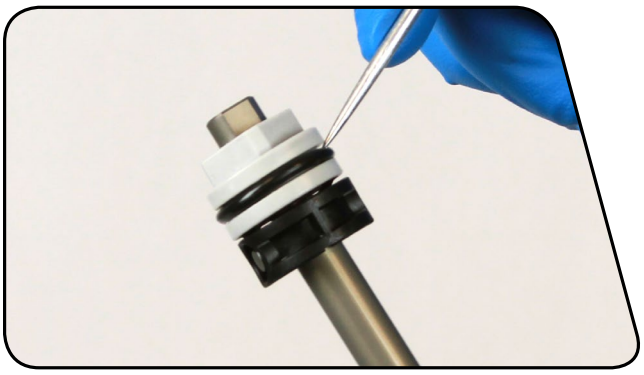
3 Remove the air shaft/piston assembly from the bottom of the air tube by pulling the shaft down and rocking it from side to side.

4 Spray isopropyl alcohol on the inside and outside of the air tube and wipe it with a clean rag. Wrap a clean rag around a long dowel and insert it into the air tube to clean inside the air tube.

5 Slide the negative piston assembly from the air shaft. Spray the air shaft with isopropyl alcohol and wipe it with a clean rag.

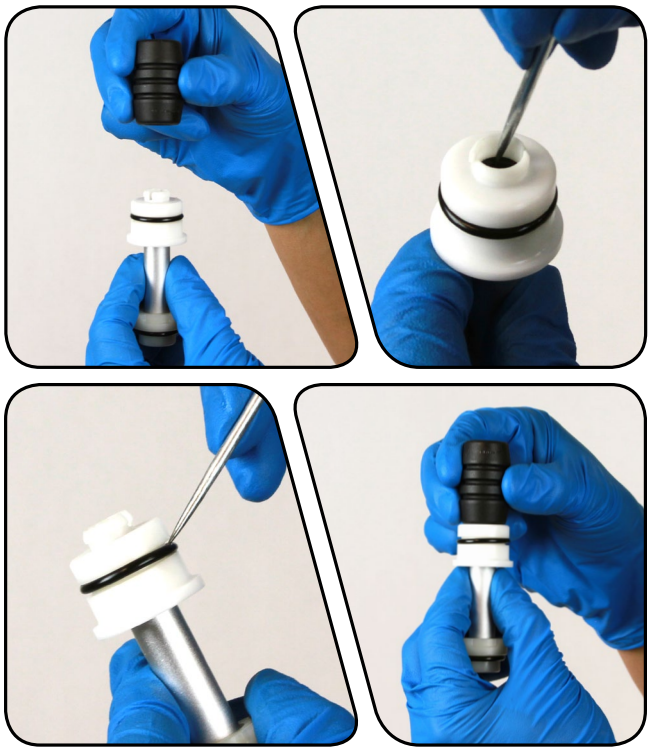
6 Use a pick to remove the air piston outer o-ring. Apply grease to the new o-ring and install it.

Do not scratch the top cap. Scratches may cause air to leak.



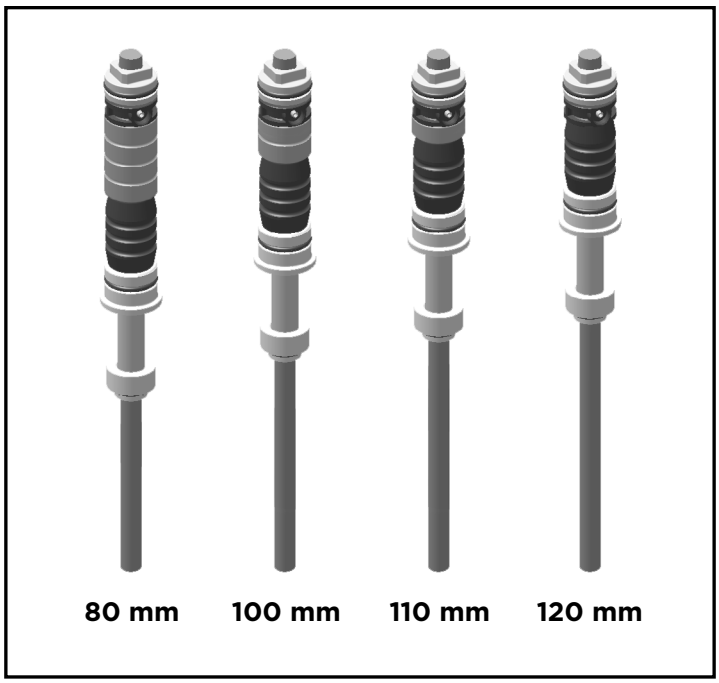
7 Remove the top out bumper from the negative piston. Use a pick to remove the inner and outer negative piston o-rings. Apply grease to the new o-rings and install them. Install the top out bumper onto the negative piston.

When using a pick to remove o-rings, do not scratch the negative piston. Scratches may cause air to leak.



OPTIONAL - ALL TRAVEL CONFIGURATION

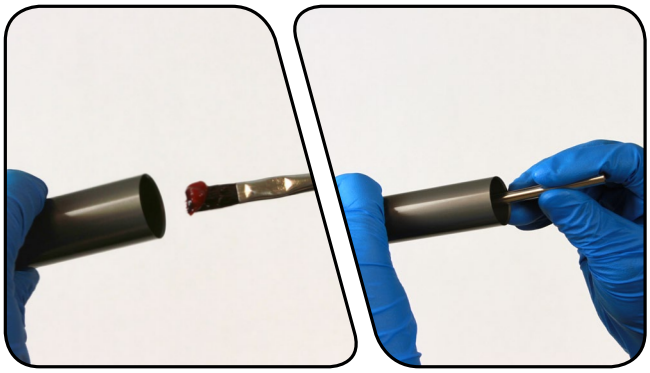
The All Travel spacers are located between the air piston and top out bumper. Install the travel spacer to decrease travel, or remove the spacer to increase travel.



SOLO AIR SPRING INSTALLATION INSTRUCTIONS

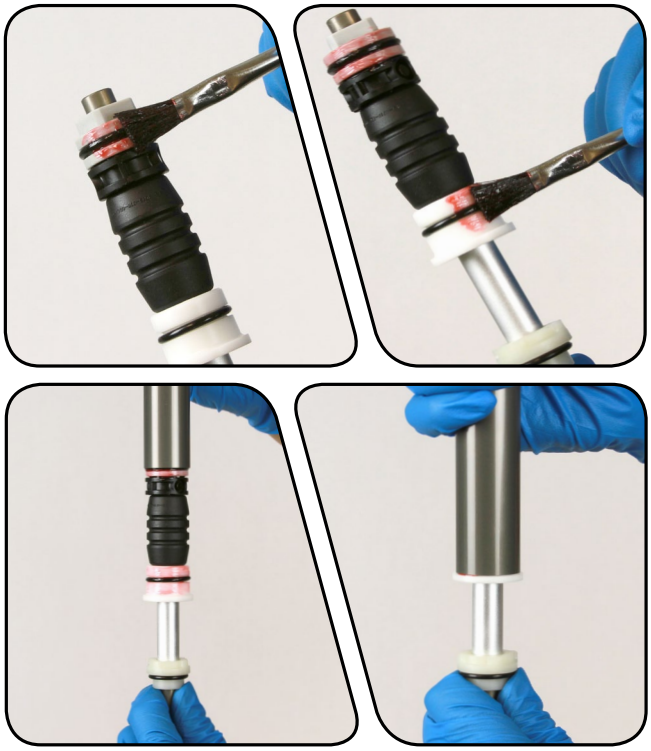
8 Insert the top out bumper back onto the negative piston. Reinstall the negative piston assembly onto the air shaft, with the top out bumper toward the air piston.

9 Apply grease to the inside of the air tube, from one end of the tube to approximately 60 mm into the tube.



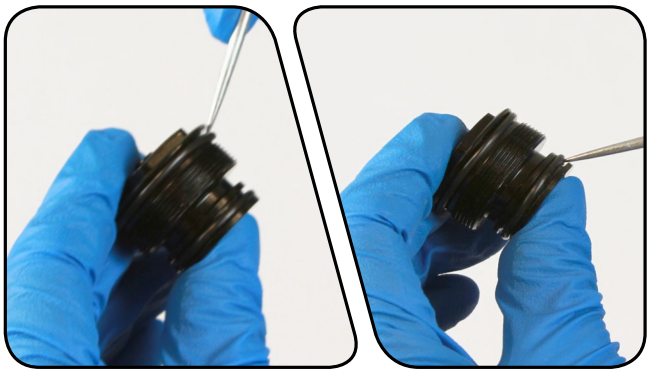
10 Apply grease to the air assembly outer o-rings.

Insert the air assembly into the greased end of the air tube. Push the negative piston into the air tube until it is firmly seated.

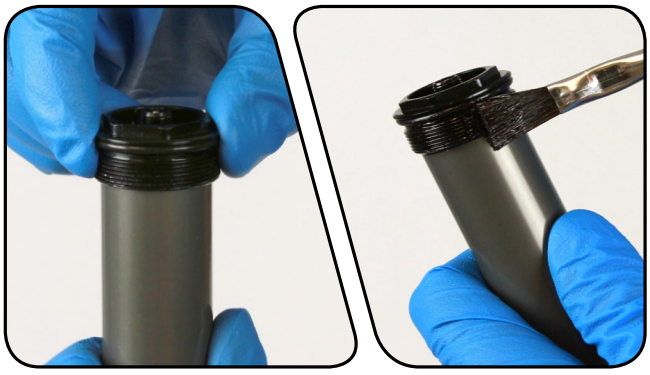


11 Use a pick to remove the top cap o-rings. Apply a small amount of grease to a new top cap o-rings and install them.

When using a pick to remove o-rings, do not scratch the top cap. Scratches may cause air to leak.



12 Press the air top cap into the air tube. Apply a small amount of grease to the top cap threads.



13 Insert the air assembly, shaft first, into the top of the upper tube. Guide the air shaft through the shaft guide in the bottom of the upper tube. Check the bottom of the upper tube to make sure the air shaft guide is seated into the upper tube shaft guide.

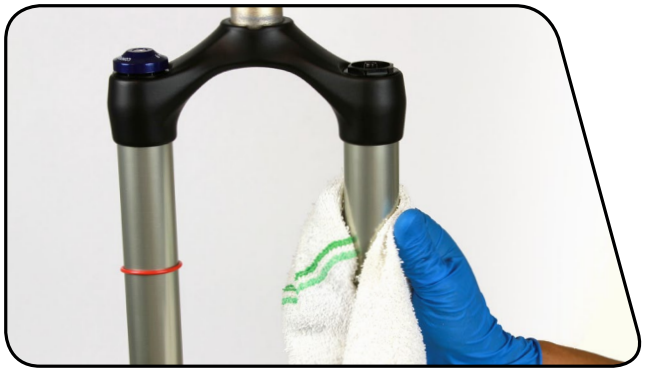
14 Apply a small amount of grease to the top cap threads and o-ring. Thread the top cap into the upper tube.

Do not damage the top cap o-ring upon installation.

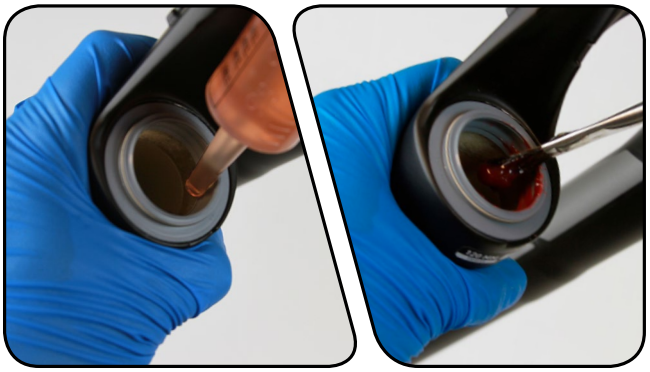
15 Use a torque wrench and a 24 mm socket to tighten the top cap to 7.3 N·m (65 in-lb).

LOWER LEG INSTALLATION

1 Spray the upper tubes with isopropyl alcohol and wipe them with a clean rag.



2 Saturate the foam rings with 15 wt RockShox suspension fluid. Apply a small amount of grease to the inner surfaces of the dust wipers.



3 Slide the lower leg assembly onto the upper tube assembly just enough to engage the upper bushing with the upper tubes.

Make sure both dust seals slide onto the tubes without folding the outer lip of either seal.

4 Position the fork at a slight angle with the shaft bolt holes oriented upward, then pour or inject 6 mL of RockShox 15 wt suspension fluid into each lower leg through the shaft bolt hole.

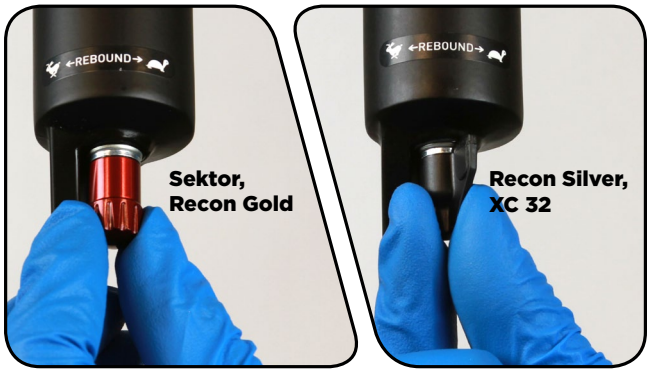
5 Slide the lower leg assembly along the upper tubes until it stops and the spring and damper shafts are visible through the shaft bolt holes. Wipe all excess oil from the outer surface of the lower legs.

6 Clean the shaft bolts, crush washers, and crush washer retainers. Inspect the crush washers and retainers. If the crush washers or retainers are flattened or deformed, replace them with new ones.

Dirty or damaged crush washers can cause oil to leak from the fork.

7 Insert the shaft bolts into the threaded shaft ends through the shaft bolt holes. Use a torque wrench with a 5 mm hex bit socket to tighten the bolts to 7.3 N·m (65 in-lb).

8 Insert the external rebound damper knob into the rebound damper shaft bolt until it is secure. Adjust rebound as desired.



9 Refer to the air chart on the fork lower leg and pressurize the air spring to the appropriate pressure for your rider weight.

You may see a drop in indicated air pressure on the pump gage while filling the air spring, this is normal. Continue to fill the air spring to the recommended air pressure.

10 Spray isopropyl alcohol on entire fork and wipe it with a clean rag.

This concludes the service for Solo Air springs for RockShox Sektor, Recon, and XC32 forks.

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SPECIALIZED BICYCLE OWNER'S MANUAL

APPENDIX A SUPPLEMENT

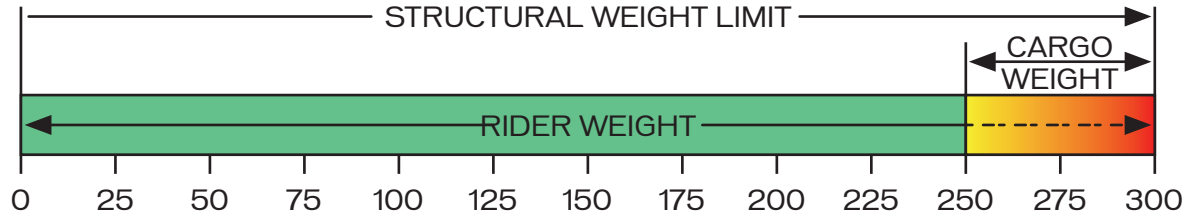
2013 RIDER/BIKE WEIGHT LIMITS AND TERRAIN CONDITIONS

2013 APPENDIX A SUPPLEMENT

INTRODUCTION

This Appendix A manual supplement is designed as an annual addition to the Appendix A section found in the Specialized Bicycle Owner's Manual. This appendix is designed to help the rider differentiate between frame structural weight limits and braking distance weight limits.

Each bike model is designed and tested to support a structural weight limit, which includes a cargo weight limit. As the weight of the rider approaches the structural weight limit of the bike, the allowable cargo weight might be reduced. For example, a bike may have a 55lb cargo weight limit, but if the weight of the rider is too close to the bike's structural weight limit, the rider may only be allowed to carry a smaller amount of cargo or no cargo at all. See following page for model-specific example and graphs.



Additionally, CEN (European Committee for Standardization) has braking distance weight limits, which require that the combined weight of the rider and cargo can be stopped within a specified distance. Exceeding the max weight per CEN braking standards does not mean that the bike will not stop, but that it might not stop within the distance specified by CEN.

The following information contains structural weight limits for frames, as well as recommended weight limits based on CEN standards for safe stopping distances. This information will also help determine if the rider and cargo weights are within the weight limits outlined in the Bike Model / Rider Weight Table (pages 5-6).

UNDERSTANDING WEIGHT LIMITS

FRAME STRUCTURAL WEIGHT LIMITS

Structural weight limits for each bike are determined by Specialized Bicycles through extensive lab testing, and are listed in the Bike Model / Rider Weight Table.

STRUCTURAL WEIGHT LIMIT: The maximum weight (rider and cargo) a bike can physically support. This limit is different from the **MAX WEIGHT PER CEN BRAKING STANDARDS** (see below).

RIDER WEIGHT: The weight of the rider in riding gear (e.g., jacket, helmet cam, hydration pack, helmet, etc.).

CARGO WEIGHT: The weight of any additional accessories (e.g., panniers, rear racks, saddle bags, handlebar bags, baskets, etc.) not accounted for in Rider Weight.

CARGO WEIGHT LIMIT: The maximum cargo weight a bike has been tested to support structurally.

MAX WEIGHT PER CEN BRAKING STANDARDS

Recommended Max Weights relate to stopping distances and **are *not* structural weight limits for the bikes**.

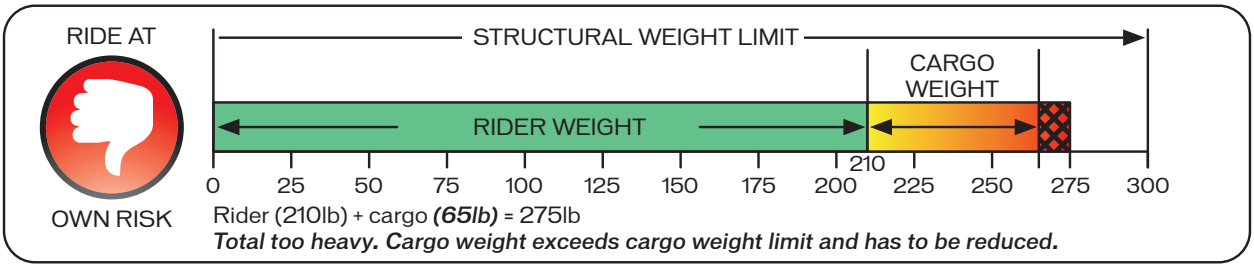
TOTAL WEIGHT: The sum of **Rider Weight** and **Cargo Weight.**

RECOMMENDED MAX WEIGHT: Each bike model is tested to determine the maximum amount of weight (combined weight of **Rider** and **Cargo**) that can be applied to a bike and the capability to stop the bike within a prescribed distance.

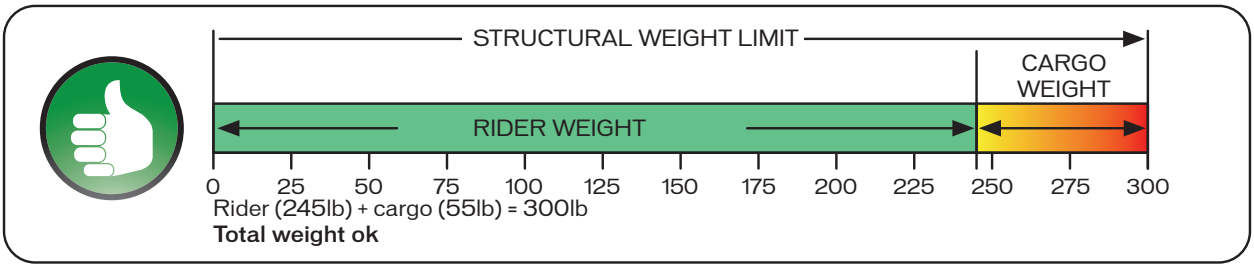
DETERMINING STRUCTURAL AND BRAKING WEIGHT LIMITS

1. Find your bike in the Bike Model / Rider Weight Table.
2. Lookup the cargo weight limit and the max weight per CEN braking standards of the bike model.
3. Determine the rider weight, which includes all riding gear.
4. Determine the cargo weight, which includes the weight of any additional accessories.
5. .Substract the rider weight from the recommended max weight. The result is the amount the rider is allowed for cargo weight, up to the cargo weight limit prescribed for the bike model.

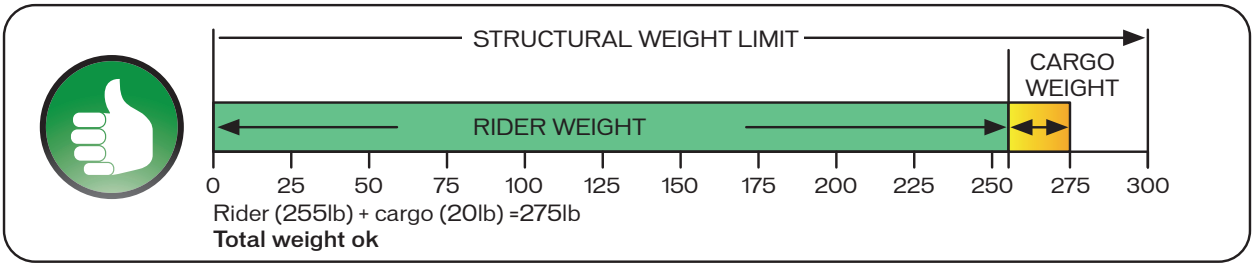
EXAMPLE: HARDROCK PRO (Max Weight Per CEN Braking Standards = 300lb / 136kg. Cargo Weight Limit = 55lb / 25kg)



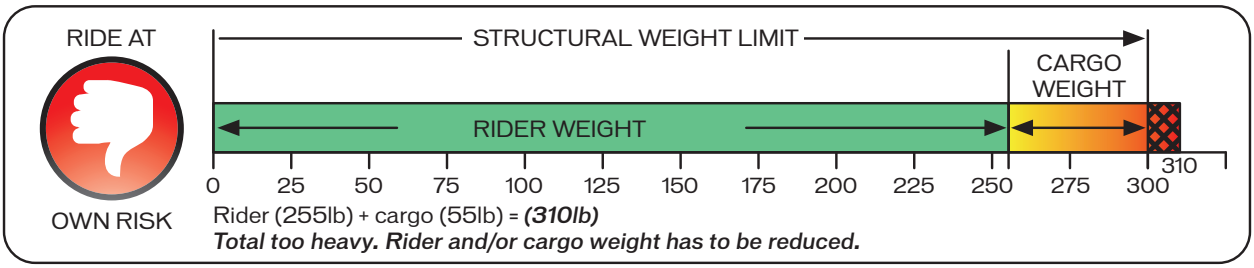
Rider (210lb) + cargo ***(65lb)*** = 275lb
Total too heavy. Cargo weight exceeds cargo weight limit and has to be reduced.



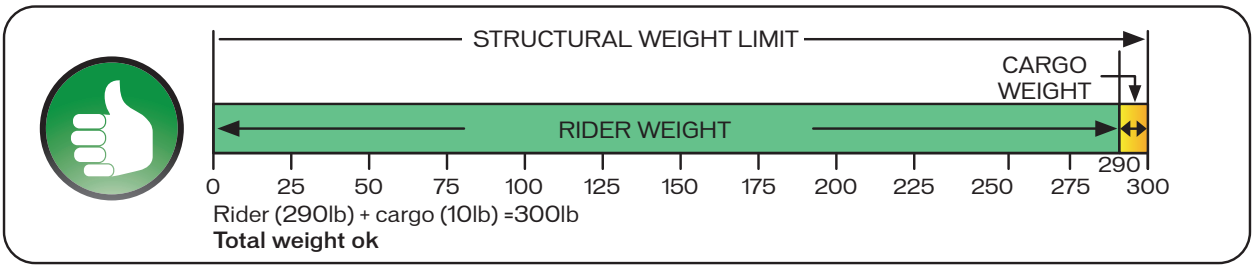
Rider (245lb) + cargo (55lb) = 300lb
Total weight ok



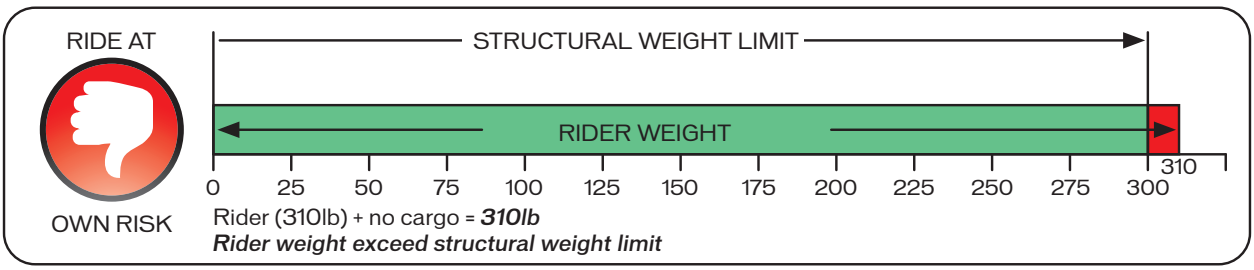
Rider (255lb) + cargo (20lb) =275lb
Total weight ok



Rider (255lb) + cargo (55lb) = ***(310lb)***
Total too heavy. Rider and/or cargo weight has to be reduced.



Rider (290lb) + cargo (10lb) =300lb
Total weight ok



Rider (310lb) + no cargo = ***310lb***
Rider weight exceed structural weight limit

INTENDED USE OF YOUR BICYCLE

WARNING: Understand your bike and its intended use. Choosing the wrong bicycle for your purpose can be hazardous. Using your bike the wrong way is dangerous.

No single type of bicycle is suited for all purposes. Your retailer can help you pick the "right tool for the job" and help you understand its limitations. There are many types of bicycles and many variations within each type. There are many types of mountain, road, racing, hybrid, touring, cyclocross and tandem bicycles.

There are also bicycles that mix features. For example, there are road/racing bikes with triple cranks. These bikes have the low gearing of a touring bike, the quick handling of a racing bike, but are not well suited for carrying heavy loads on a tour, for which, you want a touring bike.

Within each of type of bicycle, one can optimize the bicycle for certain purposes. Visit your bicycle shop and find someone with expertise in the area that interests you. Do your own homework. Seemingly small changes such as the choice of tires can improve or diminish the performance of a bicycle for a certain purpose.

On the following pages, we generally outline the intended uses of all bike types and, based in part on max weight per CEN braking standards, we specify the maximum rider weights by bike family/model.

Industry usage conditions are generalized and evolving. Consult your dealer about how you intend to use your bike.

HIGH-PERFORMANCE ROAD

- **CONDITION 1:** Bikes designed for riding on a paved surface where the tires do not lose ground contact.
- **INTENDED:** To be ridden on paved roads only.
- **NOT INTENDED:** For off-road, cyclocross, or touring with racks or panniers.
- **TRADE OFF:** Material use is optimized to deliver both light weight and specific performance. You must understand that (1) these types of bikes are intended to give an aggressive racer or competitive cyclist a performance advantage over a relatively short product life, (2) a less aggressive rider will enjoy longer frame life, (3) you are choosing light weight (shorter frame life) over more frame weight and a longer frame life, (4) you are choosing light weight over more dent resistant or rugged frames that weigh more. All frames that are very light need frequent inspection. These frames are likely to be damaged or broken in a crash. They are not designed to take abuse or be a rugged workhorse. See also Appendix B.

GENERAL PURPOSE RIDING

- **CONDITION 2:** Bikes designed for riding Condition 1, plus smooth gravel roads and improved trails with moderate grades where the tires do not lose ground contact.
- **INTENDED:** For paved roads, gravel or dirt roads that are in good condition, and bike paths.
- **NOT INTENDED:** For off-road or mountain bike use, or for any kind of jumping. Some of these bikes have suspension features, but these features are designed to add comfort, not off-road capability. Some come with relatively wide tires that are well suited to gravel or dirt paths. Some come with relatively narrow tires that are best suited to faster riding on pavement. If you ride on gravel or dirt paths, carry heavier loads or want more tire durability talk to your dealer about wider tires.

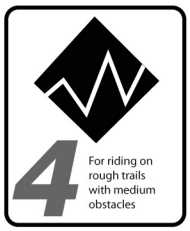
CYCLO-CROSS

- **CONDITION 2:** Bikes designed for riding Condition 1, plus smooth gravel roads and improved trails with moderate grades where the tires do not lose ground contact.
- **INTENDED:** For cyclo-cross riding, training and racing. Cyclo-cross involves riding on a variety of terrain and surfaces including dirt or mud surfaces. Cyclo-cross bikes also work well for all weather rough road riding and commuting.
- **NOT INTENDED:** For off road or mountain bike use, or jumping. Cyclo-cross riders and racers dismount before reaching an obstacle, carry their bike over the obstacle and then remount. Cyclo-cross bikes are not intended for mountain bike use. The relatively large road bike size wheels are faster than the smaller mountain bike wheels, but are not as strong.

CROSS-COUNTRY, MARATHON, HARDTAILS

- **CONDITION 3:** Bikes designed for riding Conditions 1 and 2, plus rough trails, small obstacles, and smooth technical areas, including areas where momentary loss of tire contact with the ground may occur. NOT for jumping. All mountain bikes without rear suspension are Condition 3, as well as some lightweight rear suspension models.
- **INTENDED:** For cross-country riding and racing which ranges from mild to aggressive over intermediate terrain (e.g., hilly with small obstacles like roots, rocks, loose surfaces, hard pack and depressions). Cross-country and marathon equipment (tires, shocks, frames, drive trains) are light-weight, favoring nimble speed over brute force. Suspension travel is relatively short since the bike is intended to move quickly on the ground.
- **NOT INTENDED:** For Hardcore Freeriding, Extreme Downhill, Dirt Jumping, Slopestyle, or very aggressive or extreme riding. Not for spending time in the air, landing hard and hammering through obstacles.
- **TRADE OFF:** Cross-Country bikes are lighter, faster to ride uphill, and more nimble than All-Mountain bikes. Cross-Country and Marathon bikes trade off some ruggedness for pedaling efficiency and uphill speed.

ALL MOUNTAIN



• **CONDITION 4:** Bikes designed for riding Conditions 1, 2, and 3, plus rough technical areas, moderately sized obstacles, and small jumps.

• **INTENDED:** For trail and uphill riding. All-Mountain bicycles are: (1) more heavy duty than cross country bikes, but less heavy duty than Freeride bikes, (2) lighter and more nimble than Freeride bikes, (3) heavier and have more suspension travel than a cross country bike, allowing them to be ridden in more difficult terrain, over larger obstacles and moderate jumps, (4) intermediate in suspension travel and use components that fit the intermediate intended use, (5) cover a fairly wide range of intended use, with models that are more or less heavy duty. Talk to your retailer about your needs and these models.

• **NOT INTENDED:** For use in extreme forms of jumping/riding such as hardcore mountain, Freeriding, Downhill, North Shore, Dirt Jumping, Hucking etc. Not for large drop offs, jumps or launches (wooden structures, dirt embankments) requiring long suspension travel or heavy duty components; and not for spending time in the air landing hard and hammering through obstacles.

• **TRADE OFF:** All-Mountain bikes are more rugged than cross country bikes, for riding more difficult terrain. All-Mountain bikes are heavier and harder to ride uphill than cross country bikes. All-Mountain bikes are lighter, more nimble and easier to ride uphill than Freeride bikes. All-Mountain bikes are not as rugged as Freeride bikes and must not be used for more extreme riding and terrain.

GRAVITY, FREERIDE AND DOWNHILL

• **CONDITION 5:** Bikes designed for jumping, hucking, high speeds, or aggressive riding on rougher surfaces, or landing on flat surfaces. However, this type of riding is extremely hazardous and puts unpredictable forces on a bicycle which may overload the frame, fork, or parts. If you choose to ride in Condition 5 terrain, you should take appropriate safety precautions such as more frequent bike inspections and replacement of equipment. You should also wear comprehensive safety equipment such as a full-face helmet, pads, and body armor.

• **INTENDED:** For riding that includes the most difficult terrain that only very skilled riders should attempt. Gravity, Freeride, and Downhill are terms which describe hardcore mountain, north shore, slopestyle. This is "extreme" riding and the terms describing it are constantly evolving.

Gravity, Freeride, and Downhill bikes are: (1) heavier and have more suspension travel than All-Mountain bikes, allowing them to be ridden in more difficult terrain, over larger obstacles and larger jumps, (2) the longest in suspension travel and use components that fit heavy duty intended use. There is no guarantee that extreme riding will not break a Freeride bike.

The terrain and type of riding that Freeride bikes are designed for is inherently dangerous. Appropriate equipment, such as a Freeride bike, does not change this reality. In this kind of riding, bad judgment, bad luck, or riding beyond your capabilities can easily result in an accident, where you could be seriously injured, paralyzed or killed.

• **NOT INTENDED:** To be an excuse to try anything. Read Section 2. F of the Bicycle Owner's Manual, p. 12.

• **TRADE OFF:** Freeride bikes are more rugged than All-Mountain bikes, for riding more difficult terrain. Freeride bikes are heavier and harder to ride uphill than All-Mountain bikes.

DIRT JUMP

• **CONDITION 5:** Bikes designed for jumping, hucking, high speeds, or aggressive riding on rougher surfaces, or landing on flat surfaces. However, this type of riding is extremely hazardous and puts unpredictable forces on a bicycle which may overload the frame, fork, or parts. If you choose to ride in Condition 5 terrain, you should take appropriate safety precautions such as more frequent bike inspections and replacement of equipment. You should also wear comprehensive safety equipment such as a full-face helmet, pads, and body armor.

• **INTENDED:** For man-made dirt jumps, ramps, skate parks other predictable obstacles and terrain where riders need and use skill and bike control, rather than suspension. Dirt Jumping bikes are used much like heavy duty BMX bikes.

A Dirt Jumping bike does not give you skills to jump. Read Section 2. F of the Bicycle Owner's Manual, p. 12.

• **NOT INTENDED:** For terrain, drop offs or landings where large amounts of suspension travel are needed to help absorb the shock of landing and help maintain control.

• **TRADE OFF:** Dirt Jumping bikes are lighter and more nimble than Freeride bikes, but they have no rear suspension and the suspension travel in the front is much shorter.

KIDS

Bikes designed to be ridden by children. Parental supervision is required at all times. Avoid areas involving automobiles, and obstacles or hazards including inclines, curbs, stairs, sewer grates or areas near drop-offs or pools.

The Hotwalk Owner's Manual is available as a separate document, supplied with the Hotwalk bikes

BIKE MODEL / RIDER WEIGHT TABLE			SPECIALIZED STRUCTURAL WEIGHT LIMIT ON FRAME [6]		MAX WEIGHT PER CEN BRAKING STANDARDS [7, 8, 9]
		CATEGORY (See Intended Use Page 3)	lb / kg		
Allez	S-Works Allez	1	30 / 14 [2]	240 / 109 [3]	240 / 109
	Elite, Sport, Base	1	30 / 14 [2]	275 / 125	220 / 100
	Race	1	30 / 14 [2]	275 / 125	243 / 110
	Expert, Elite Int., Sport Int.	1	30 / 14 [2]	275 / 125	265 / 120
	Comp	1	30 / 14 [2]	275 / 125	275 / 125
Amira	All models	1	5 / 2.3 [1]	240 / 109 [3]	240 / 109
Ariel	All models	2	55 / 25	300 / 136	300 / 136
Camber	Pro, Expert, Expert EVO R	4	30 / 14 [2]	240 / 109 [3]	240 / 109
	Comp Carbon	4	30 / 14 [2]	275 / 125	275 / 125
	Comp, Base	4	30 / 14 [2]	300 / 136	300 / 136
Carve	Ned Overend LTD	3	55 / 25	240 / 109 [3]	240 / 109
	Pro, Expert, Comp, SL	3	55 / 25	300 / 136	300 / 136
Crossover	All models	2	55 / 25	300 / 136	300 / 136
Crossroads	All models	2	55 / 25	300 / 136	300 / 136
CrossTrail	LTD Disc	2	55 / 25	240 / 109 [3]	240 / 109
	Pro, Expert, Comp, Elite, Sport, Base	2	55 / 25	300 / 136	300 / 136
CruX	Pro	2	5 / 2.3 [1]	240 / 109 [3]	240 / 109
	Expert, Comp	2	5 / 2.3 [1]	275 / 125	275 / 125
	Elite	2	30 / 14 [2]	275 / 125	275 / 125
Daily	All models	2	55 / 25	300 / 136	220 / 100
Demo 8	Carbon Team Replica, II	5	30 / 14 [2]	240 / 109 [3]	240 / 109
	I Carbon	5	30 / 14 [2]	275 / 125	275 / 125
	I	5	30 / 14 [2]	300 / 136	300 / 136
Dolce	All models	1	55 / 25	275 / 125	220 / 100
Enduro	S-Works, Expert	4	30 / 14 [2]	240 / 109 [3]	240 / 109
	Comp, Evo	4	30 / 14 [2]	300 / 136	300 / 136
Epic	S-Works	3	5 / 2.3 [1]	240 / 109 [3]	240 / 109
	Marathon, Expert	3	30 / 14 [2]	240 / 109 [3]	240 / 109
	Comp Carbon	3	30 / 14 [2]	275 / 125	275 / 125
	Comp	3	30 / 14 [2]	300 / 136	300 / 136
Expedition	All models	2	55 / 25	300 / 136	300 / 136
Fate	S-Works, Expert	3	5 / 2.3	240 / 109 [3]	240 / 109
	All models	3	5 / 2.3	275 / 125	275 / 125
Hardrock	All models	3	55 / 25	300 / 136	300 / 136
Hotrock	24" XC Disc, 24" XC boy/girl	3	5 / 2.3 [1]	220 / 100	220 / 100
	24" 21spd, 7spd boy/girl 20" 6spd, coaster boy/girl	6	5 / 2.3	220 / 100	220 / 100
	16" and 12" coaster boy/girl	6	5 / 2.3	80 / 36	80 / 36
	Hotwalk	6	0 / 0	40 / 18	40 / 18
Jett	All models	3	55 / 25	300 / 136	300 / 136
Langster	Pro	1	30 / 14 [2]	240 / 109	240 / 109
	Base	1	30 / 14 [2]	275 / 125	220 / 100

BIKE MODEL / RIDER WEIGHT TABLE			SPECIALIZED STRUCTURAL WEIGHT LIMIT ON FRAME [6]		MAX WEIGHT PER CEN BRAKING STANDARDS [7, 8, 9]
		CATEGORY (See Intended Use Page 3)			
Myka FSR	All models	3	30 / 14 [2]	300 / 136	300 / 136
Myka HT	All models	3	55 / 25	300 / 136	300 / 136
P. Series	All models	5	0 / 0	300 / 136	300 / 136
Rockhopper	All models	3	55 / 25	300 / 136	300 / 136
Roll	8 Rare	1	30 / 14 [2]	300 / 136	220 / 100
	8 Step Through, 1 Drop, 1	1	30 / 14 [2]	300 / 136	243 / 110
Roubaix	All models	1	5 / 2.3 [1]	240 / 109 [3]	240 / 109
Ruby	All models	1	5 / 2.3 [1]	240 / 109 [3]	240 / 109
Safire	Expert	3	30 / 14 [2]	240 / 109 [3]	240 / 109
	Comp	3	30 / 14 [2]	300 / 136	300 / 136
Secteur	Expert Disc, Sport Disc	1	55 / 25	240 / 109 [3]	240 / 109
	Comp, Elite, Sport Int.	1	55 / 25	275 / 125	265 / 120
	Sport, Base	1	55 / 25	275 / 125	220 / 100
Shiv	S-Works, Pro, Expert,Comp	1	5 / 2.3 [1]	240 / 109 [3]	240 / 109
	Elite A1	1	30 / 14 [2]	240 / 109 [3]	240 / 109
Sirrus	Limited	1	5 / 2.3 [1]	240 / 109 [3]	240 / 109
	Pro	2	55 / 25	240 / 109 [3]	240 / 109
	Expert, Comp	2	55 / 25	275 / 125	265 / 120
	Elite	2	55 / 25	275 / 125	275 / 125
	Expert Disc, Comp Disc, Elite Disc, Elite Int., Sport Int., Sport, Base	2	55 / 25	300 / 136	300 / 136
SJ FSR	S-Works, Expert Carbon	4	5 / 2.3 [1]	240 / 109 [3]	240 / 109
	Expert Carbon Evo, Elite	4	30 / 14 [2]	240 / 109 [3]	240 / 109
	Comp Carbon	4	30 / 14 [2]	275 / 125	275 / 125
	Comp, Comp Evo	4	30 / 14 [2]	300 / 136	300 / 136
SJ HT	S-Works, Marathon, Expert Evo, Expert	3	5 / 2.3 [1]	240 / 109 [3]	240 / 109
	Comp Carbon	3	5 / 2.3 [1]	275 / 125	275 / 125
	Comp, Evo	3	30 / 14 [2]	300 / 136	300 / 136
Source	All models	2	55 / 25	300 / 136	300 / 136
Status	All models	5	30 / 14 [2]	300 / 136	300 / 136
Tarmac	All models	1	5 / 2.3 [1]	240 / 109 [3, 5]	240 / 109
Transition	All models	1	5 / 2.3 [1]	240 / 109 [3]	240 / 109
TriCross	Comp Disc	1	55 / 25	240 / 109 [3]	240 / 109
	Elite Steel Disc, Elite Disc, Sport Disc, Sport, Base	1	55 / 25	275 / 125	275 / 125
Turbo	All models	2	55 / 25	240 / 109 [3]	240 / 109
Venge	All models	1	5 / 2.3 [1]	240 / 109 [3, 5]	240 / 109
Vita	Limited	1	5 / 2.3 [1]	240 / 109 [3]	240 / 109
	Pro, Comp, Elite	2	55 / 25	275 / 125	265 / 120
	Elite Disc, Elite, Sport, Base	2	55 / 25	300 / 136	265 / 120
Work	All models	2	55 / 25	300 / 136	300 / 136

See following page for footnotes

FOOTNOTES

[1] Seat Bag Only.

[2] For **ALLOY** bikes manufactured without original equipment dropout rack mounts: A rear rack can be installed with the use of separate rack mount clips. Cargo capacity with separate mounting clips is limited to 30lb / 14kg.

[3] STRUCTURAL WEIGHT LIMITS FOR FRAMES:

- Carbon and alloy road frames: 275lb / 125kg.
- Carbon mountain frames: 275lb / 125kg.
- Alloy mountain frames: 300lb / 136kg.
- If any weight-bearing Specialized-branded carbon components (i.e. handlebar, seatpost, stem, crank, saddle, rim) are present, then the weight ... limit is 240lb / 109kg. This does not include non-weight-bearing carbon components such as brake levers, chainrings, bottle cages, etc.
- **IMPORTANT: Braking limits do not change regardless of carbon or alloy components.**

[4] Live bikes have a built-in front rack limited to 55lb / 25kg. They can accept a rear rack limited to 55lb / 25kg for a total of 110lb / 50kg.

[5] The S-Works Venge EPS and S-Works Tarmac Black models are equipped with a Zipp 404 Firecrest tubular wheelset, which has a weight rating of 225lb / 102kg.
For riders above this weight, the wheelset should be replaced with a wheelset that has appropriate weight ratings.

[6] The STRUCTURAL WEIGHT LIMIT for a particular model can exceed the RECOMMENDED MAX WEIGHT specified by CEN standards for stopping distance. If a rider's weight is above the RECOMMENDED MAX WEIGHT but below the STRUCTURAL WEIGHT LIMIT, the rider would be able to use the bike from a structural standpoint, but it would not pass CEN stopping distance requirements.

[7] Recommended max weights are based on European (CEN) testing standards (for cargo and rider only).

[8] Recommended max weights are based on braking limits, not structural weight limits of the frames.

[9] CEN braking standards are based on the brakes specified on the bike models from the manufacturer. Changing the brakes can result in an increase or decrease in the braking distance.

WARNING: For riders at the RIDER WEIGHT LIMIT, you may not be able to carry cargo if the TOTAL WEIGHT LIMIT is exceeded.

SPECIALIZED BICYCLE COMPONENTS
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Please note all instructions are subject to change for improvement without notice.
Please visit www.specialized.com for periodic tech updates.
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